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Oxidative activation of aromatic rings: an efficient strategy for arene functionalization

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Tetrahedron Symposium-in-Print Number 86

Lewis acid control of asymmetric synthesis

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M. M. Suni, V. A. Nair and C. P. Joshua 2003 Heterocyclization of 1-aryl/alkyl-2-thiobiureas to 4-aryl/alkyl-3-substituted-Δ^2-1,2,4-triazolin-5-ones

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recipient of the 1999 Tetrahedron Prize for Creativity in Organic Chemistry

Guest Editor: Léon A. Ghosez

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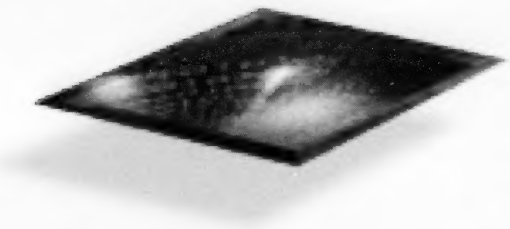

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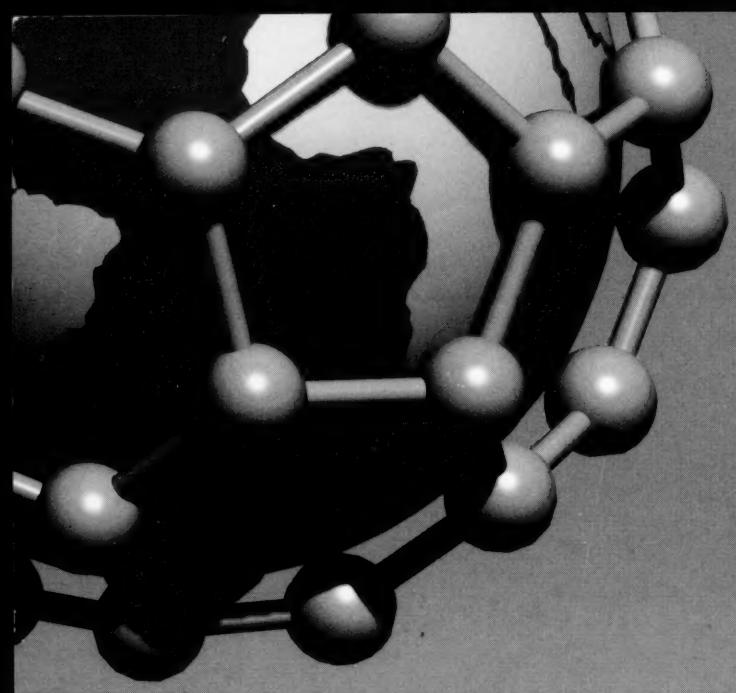

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